**Listing of Claims:**

1. (Previously presented): A method in a data processing system for managing traffic in a network data processing system, the method comprising:

monitoring the traffic for a plurality of TCP connections or UDP associations through a given network path; and

prior to sending a packet on a particular TCP connection or UDP association within the plurality of TCP connections or UDP associations, determining if the packet will cause the traffic for the network path to exceed a level of traffic allowed and, if the packet will cause the traffic for the network path to exceed the level of traffic allowed, reducing the traffic for one of the particular TCP connection or UDP association and another TCP connection or UDP association using an action based on a transmission protocol corresponding to the one TCP connection or UDP association.

2. (Previously presented): The method of claim 1, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

3. (Previously presented): The method of claim 1, wherein when the one TCP connection or UDP association comprises a TCP connection, the action comprises:

reducing a congestion window size by multiplying an amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the network path to reduce the amount of bandwidth available based on a fair share for the one TCP connection.

4. (Previously presented): The method of claim 3, wherein the congestion window size is reduced as follows:

CW = max(MinW, min(CW*F,MaxW))

wherein CW is the congestion window size, MinW is a minimum congestion window size for the one TCP connection, MaxW is a maximum congestion window size for the one TCP connection, and F is the dynamic variable.

5. (Previously presented): The method of claim 1, wherein the action comprises:

setting a quality of service for packets.

6. (Previously presented): The method of claim 1, wherein the action comprises:

dropping the packet.

7. (Previously presented): A method in a data processing system for managing traffic in a network data processing system, the method comprising:

monitoring traffic for each of a plurality of TCP connections or UDP associations through a given network path; and

prior to sending a packet on a selected TCP connection or UDP association within the plurality of TCP connections and UDP associations, determining if the packet will cause the traffic for the network path to exceed a threshold and, if the packet will cause the traffic for the network path to exceed the threshold, further determining if the packet will cause the traffic for the selected TCP connection or UDP association to exceed its fair share amount of the network path and if so, reducing the traffic for the selected TCP connection or UDP association using an action based on a transmission protocol corresponding to the selected TCP connection or UDP association.

8. (Previously presented): The method of claim 7, wherein the traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

9. (Previously presented): The method of claim 7, wherein when the selected TCP connection or UDP association comprises a selected TCP connection the action comprises:

reducing a congestion window size by multiplying an amount of traffic by a dynamic variable that is adjusted using changing requirements of the network path to reduce the traffic for the selected TCP connection.

10. (Previously presented): The method of claim 7, wherein the action comprises:

reducing a sending size for data packets.

11. (Deleted)

12. (Previously presented): The method of claim 7, wherein the threshold takes into account a fair share of bandwidth available for the plurality of TCP connections or UDP associations.

13. (Previously presented): A data processing system comprising:

a bus system;

a communications unit connected to the bus, wherein data is sent and received using the communications unit;

a memory connected to the bus system, wherein a set of instructions are located in the memory; and

a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor traffic for a plurality of TCP connections or UDP associations through a given network path; and prior to sending a packet on a particular TCP connection or UDP association within the plurality of TCP connections or UDP associations, determining if the packet will cause the traffic for the network path to exceed a level of traffic allowed and if so, reduce the traffic for one of the particular TCP connection or UDP association and another TCP connection or UDP association using an action based on a transmission protocol corresponding to the one TCP connection or UDP association.

14. (Previously presented): The data processing system of claim 13, wherein the bus system comprises a primary bus and a secondary bus.

15. (Previously presented): The data processing system of claim 13, wherein the processor unit comprises a single processor.

16. (Previously presented): The data processing system of claim 13, wherein the processor

unit comprises a plurality of processors.

17. (Original): The data processing system claim 13, wherein the communications unit is an Ethernet adapter.

18. (Previously presented): A data processing system comprising:

a bus system;

a communications unit connected to the bus, wherein data is sent and received using the communications unit;

a memory connected to the bus system, wherein a set of instructions are located in the memory; and

a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor traffic for each of a plurality of TCP connections or UDP associations through a given network path; and prior to sending a packet on a selected TCP connection or UDP association, determining if the packet will cause the traffic for the network path to exceed a threshold and if so, further determining if the packet will cause the traffic for the selected TCP connection or UDP association to exceed its fair share amount of the network path and if so, reduce the traffic for the selected TCP connection or UDP association using an action based on a transmission protocol corresponding to the selected TCP connection or UDP association.

19. (Previously presented): The data processing system of claim 18, wherein the bus system comprises a primary bus and a secondary bus.

20. (Previously presented): The data processing system of claim 18, wherein the processor unit comprises a single processor.

21. (Previously presented): The data processing system of claim 18, wherein the processor unit comprises a plurality of processors.

22. (Original): The data processing system claim 18, wherein the communications unit is an Ethernet adapter.

23. (Previously presented): A data processing system for managing traffic in a network data processing system, the data processing system comprising:

means for monitoring the traffic for a plurality of TCP connections or UDP associations through a given network path and, prior to sending a packet on a particular TCP connection or UDP association within the plurality of TCP connections or UDP associations, determining if the packet will cause the traffic for the network path to exceed a level of traffic allowed; and

means for reducing, responsive to the packet for the particular TCP connection or UDP association within the plurality of TCP connections or UDP associations causing the traffic for the network path to exceed the level of traffic allowed, the traffic for one of the particular TCP connection or UDP association and another TCP connection or UDP association using an action based on a transmission protocol corresponding to the one TCP connection or UDP association.

24. (Previously presented): The data processing system of claim 23, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

25. (Previously presented): The data processing system of claim 23, wherein when the one TCP connection or UDP association comprises a TCP connection the action comprises:

reducing a congestion window size by multiplying the amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the network path to reduce the amount of bandwidth available based on a fair share for the one TCP connection.

26. (Previously presented): The data processing system of claim 25, wherein the congestion window size is reduced as follows:

CW = max(MinW, min(CW*F,MaxW))

wherein CW is the congestion window size, MinW is a minimum congestion window size for the

one TCP connection, MaxW is a maximum congestion window size for the one TCP connection, and F is the dynamic variable.

27. (Previously presented): The data processing system of claim 23, wherein the action comprises:

means for setting a quality of service for packets.

28. (Previously presented): The data processing system of claim 23, wherein the action comprises:

means for dropping the packet.

29. (Previously presented): A data processing system for managing traffic in a network data processing system, the data processing system comprising:

means for monitoring traffic for each of a plurality of TCP connections or UDP associations through a given a network path and, prior to sending a packet on a selected TCP connection or UDP association, determining if the packet will cause the traffic for the network path to exceed a threshold and, if so, further determining if the packet will cause the traffic for the selected TCP connection or UDP association to exceed its fair share amount of the network path; and

means for reducing, responsive to the packet for the selected TCP connection or UDP association causing the traffic for the network path to exceed the threshold and further causing the traffic for the selected TCP connection or UDP association to exceed its fair share, the traffic for the selected TCP connection or UDP association using an action based on a transmission protocol corresponding to the selected TCP connection or UDP association.

30. (Previously presented): The data processing system of claim 29, wherein the traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

31. (Previously presented): The data processing system of claim 29, wherein when the selected TCP connection or UDP association comprises a selected TCP connection the action comprises:

reducing a congestion window size by multiplying an amount of traffic by a dynamic variable that is adjusted using changing requirements of the network path to reduce the traffic for the selected TCP connection.

32. (Previously presented): The data processing system of claim 29, wherein the action comprises:

means for reducing a sending size for data packets.

33. (Previously presented): The data processing system of claim 29, wherein the action comprises changing a quality of service for data packets.

34. (Previously presented): The data processing system of claim 29, wherein the threshold takes into account a fair share of bandwidth available for the plurality of TCP connections or UDP associations.

35. (Previously presented): A computer program product for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

computer usable program code configured to monitor the traffic for each of a plurality of TCP connections or UDP associations through a given network path and, prior to sending a packet on a particular TCP connection or UDP association within the plurality of TCP connections or UDP associations, determining if the packet will cause the traffic for the network path to exceed a level of traffic allowed;

computer usable program code configured to reduce the traffic for one of the particular TCP connection or UDP association and another TCP connection or UDP association using an

action based on a transmission protocol corresponding to the one TCP connection or UDP association in response to the packet for the particular TCP connection or UDP association within the plurality of TCP connections or UDP associations causing the traffic for the network path to exceed the level of traffic allowed.

36. (Previously presented): The computer program product as recited in claim 35, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

37. (Previously presented): The computer program product as recited in claim 35, wherein when the one TCP connection or UDP association comprises a TCP connection the action comprises:

reducing a congestion window size by multiplying an amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the network path to reduce the amount of bandwidth available based on a fair share for the one TCP connection.

38. (Previously presented): The computer program product as recited in claim 37, wherein the congestion window size is reduced as follows:

CW = max(MinW, min(CW*F,MaxW))

wherein CW is the congestion window size, MinW is a minimum congestion window size for the one TCP connection, MaxW is a maximum congestion window size for the one TCP connection, and F is the dynamic variable.

39. (Previously presented): The computer program product as recited in claim 35, wherein the action comprises:

setting a quality of service for packets.

40. (Previously presented): The computer program product as recited in claim 35, wherein the action comprises:

dropping the packet.

41. (Previously presented): A computer program product for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

computer usable program code configured to monitor traffic for each of a plurality of TCP connections or UDP associations through a given network path and, prior to sending a packet on a selected TCP connection or UDP association, determining if the packet will cause the traffic for the network path to exceed a threshold and, if so, further determining if the packet will cause the traffic for the selected TCP connection or UDP association to exceed its fair share amount of the network path; and

computer readable program code configured to reduce the traffic for the selected TCP connection or UDP association using an action based on a transmission protocol corresponding to the selected TCP connection or UDP association in response to the traffic for the network path exceeding the threshold and the traffic for the selected TCP connection or UDP association exceeding its fair share.

42. (Previously presented): The computer program product as recited in claim 41, wherein the traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

43. (Previously presented): The computer program product as recited in claim 41, wherein when the selected TCP connection or UDP association comprises a selected TCP connection the action comprises:

reducing a congestion window size by multiplying an amount of traffic by a dynamic variable that is adjusted using changing requirements of the network path to reduce the traffic for the selected TCP connection.

44. (Previously presented): The computer program product of claim 41, wherein the action comprises:

reducing a sending size for data packets.

45. (Previously presented): The computer program product of claim 41, wherein the action comprises:

changing a quality of service for data packets.

46. (Previously presented): The method of claim 1, wherein if the packet will cause the traffic for the network path to exceed the level of traffic allowed for the network path, further determining if the packet will cause the traffic for the particular TCP connection or UDP association to exceed its fair share amount of the network path and if so reducing the traffic for the particular TCP connection or UDP association.

47. (Previously presented) The method of claim 1, wherein said monitoring comprises monitoring at a server the traffic for the plurality of TCP connections or UDP associations through a given network.